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# (12) United States Patent

### Chiao et al.

## (54) SMART MONITOR SYSTEM AND HAND-HELD ELECTRONIC DEVICE

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#### (57) ABSTRACT

A smart monitor system includes a hand-held electronic device and a monitor. The hand-held electronic device includes a panel, a control unit, a touch-sensing cover and a wireless communication unit. The touch-sensing cover has a cover and a touch-sensing structure. The cover is disposed on the side of the hand-held electronic device opposite the panel. Partial or total area of the touch-sensing structure is disposed on the cover. The touch-sensing structure is electrically connected to the control unit. The wireless communication unit has a wireless communication chip and an antenna. The wireless communication chip is electrically connected to the control unit, and the antenna is disposed on the touch-sensing cover. The smart monitor system can communicate with and controls the monitor through the hand-held electronic device for various application.

## 18 Claims, 17 Drawing Sheets

